

Title (en)  
FILTER

Title (de)  
FILTER

Title (fr)  
FILTRE

Publication  
**EP 3366357 B1 20210526 (EN)**

Application  
**EP 18166417 A 20150407**

Priority  

- GB 201406174 A 20140404
- GB 201407584 A 20140430
- EP 15716860 A 20150407
- GB 2015051056 W 20150407

Abstract (en)  
[origin: WO2015150836A1] The present invention discloses a filter comprising a tube extending from a first end to a second end and having a bore with an internal cross-sectional area. The tube comprises an inlet with an inlet cross-sectional area which is positioned through the first end of the tube. The tube also comprises an outlet with an outlet cross-sectional area, wherein the inlet cross-sectional area is less than the outlet cross-sectional area and so debris small enough to enter the inlet will tend not to block the outlet, which is larger. The filter further comprises a plurality of further inlets, often slots, in the tube between an outside thereof and the bore. In a preferred embodiment, the first end may be tapered and especially dome shaped. This helps to direct debris towards an outside of the tube, where it is less likely to be drawn into the filter and potentially block it or a downstream component, such as a nozzle. The filter may be attached to a pipeline and a nozzle.

IPC 8 full level  
**A62C 31/00** (2006.01); **A62C 31/02** (2006.01); **A62C 35/68** (2006.01); **B05B 15/40** (2018.01); **F23K 5/18** (2006.01)

CPC (source: CN EA EP US)  
**A62C 31/005** (2013.01 - CN EA EP US); **A62C 31/02** (2013.01 - CN EA EP US); **A62C 35/68** (2013.01 - CN EA EP US);  
**B01D 29/92** (2013.01 - EA US); **B01D 35/02** (2013.01 - EA US); **B05B 15/40** (2018.02 - EA EP US); **F23K 5/18** (2013.01 - CN EA EP US)

Citation (examination)  

- US 5087355 A 19920211 - GODEC C T [US]
- EP 1992415 A2 20081119 - LECHLER GMBH [DE]

Cited by  
US10690577B2; US11135535B2

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**WO 2015150836 A1 20151008**; AU 2015242360 A1 20161020; AU 2015242360 B2 20190314; AU 2019100443 A4 20190530;  
AU 2019204135 A1 20190704; AU 2019204135 B2 20200917; BR 112016023130 A8 20210420; BR 112016023130 B1 20211116;  
CA 2944686 A1 20151008; CA 2944686 C 20230808; CN 106163621 A 20161123; CN 106163621 B 20220211; DK 2981338 T3 20190121;  
DK 3366357 T3 20210830; DK 3427799 T3 20230904; EA 034737 B1 20200313; EA 201691902 A1 20170130; EP 2981338 A1 20160210;  
EP 2981338 B1 20180919; EP 3366357 A1 20180829; EP 3366357 B1 20210526; EP 3427799 A1 20190116; EP 3427799 B1 20230531;  
GB 201406174 D0 20140521; GB 201407584 D0 20140611; MX 2016012867 A 20170331; MY 188463 A 20211210;  
SG 10201808755Y A 20181129; SG 11201608231S A 20161028; US 11135535 B2 20211005; US 2017028325 A1 20170202;  
US 2021402335 A1 20211230

DOCDB simple family (application)  
**GB 2015051056 W 20150407**; AU 2015242360 A 20150407; AU 2019100443 A 20190426; AU 2019204135 A 20190613;  
BR 112016023130 A 20150407; CA 2944686 A 20150407; CN 201580018562 A 20150407; DK 15716860 T 20150407;  
DK 18166417 T 20150407; DK 18187857 T 20150407; EA 201691902 A 20150407; EP 15716860 A 20150407; EP 18166417 A 20150407;  
EP 18187857 A 20150407; GB 201406174 A 20140404; GB 201407584 A 20140430; MX 2016012867 A 20150407;  
MY PI2016703624 A 20150407; SG 10201808755Y A 20150407; SG 11201608231S A 20150407; US 201515301536 A 20150407;  
US 202117468092 A 20210907